

F ENT COOPERATION TREA

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark
Office
(Box PCT)
Crystal Plaza 2
Washington, DC 20231
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 20 October 1998 (20.10.98)	
International application No. PCT/SE98/00339	Applicant's or agent's file reference
International filing date (day/month/year) 25 February 1998 (25.02.98)	Priority date (day/month/year) 26 February 1997 (26.02.97)
Applicant RÖNNBERG, Peter et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

25 September 1998 (25.09.98)

☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p>Yolaine CUSSAC</p> <p>Telephone No.: (41-22) 338.83.38</p>
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PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING OF A CHANGE

(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

BERG, Sven, Anders
Albihns Patentbyrå Stockholm AB
P.O. Box 3137
S-103 62 Stockholm
SUÈDE

5000

09/380211

Date of mailing (day/month/year) 05 August 1999 (05.08.99)	IMPORTANT NOTIFICATION International filing date (day/month/year) 25 February 1998 (25.02.98)
Applicant's or agent's file reference	
International application No. PCT/SE98/00339	

1. The following indications appeared on record concerning:

☒ the applicant
 ☒ the inventor
 ☐ the agent
 ☐ the common representative

Name and Address

FRANSSON, Eva
Brobergsgatan 7
S-431 66 Mölndal
Sweden

State of Nationality

SE

State of Residence

SE

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person
 ☒ the name
 ☐ the address
 ☐ the nationality
 ☐ the residence

Name and Address

SIMMONS, Eva
Brobergsgatan 7
S-431 66 Mölndal
Sweden

State of Nationality

SE

State of Residence

SE

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

☒ the receiving Office
 ☐ the designated Offices concerned
☐ the International Searching Authority
 ☒ the elected Offices concerned
☒ the International Preliminary Examining Authority
 ☐ other:

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

S. Baharlou

Telephone No.: (41-22) 338.83.38

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PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

10 13

BERG, Sven, Anders
Albihns Patentbyrå Stockholm AB
P.O. Box 3137
S-103 62 Stockholm
SUEDE14/10
KCL KCL

Date of mailing (day/month/year) 01 October 1998 (01.10.98)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference 42866-49500	
International application No. PCT/SE98/00339	International filing date (day/month/year) 25 February 1998 (25.02.98)

1. The following indications appeared on record concerning:

☒ the applicant ☐ the inventor ☐ the agent ☐ the common representative

Name and Address

SCA MÖLNLYCKE AB
S-405 03 Göteborg
Sweden

State of Nationality

SE

State of Residence

SE

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person ☒ the name ☐ the address ☐ the nationality ☐ the residence

Name and Address

SCA HYGIENE PRODUCTS AB
S-405 03 Göteborg
Sweden

State of Nationality

SE

State of Residence

SE

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input checked="" type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input type="checkbox"/> the elected Offices concerned
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Yolaine CUSSAC

Facsimile No.: (41-22) 740.14.35

Telephone No.: (41-22) 338.83.38

RAPPORT OM NYHETSGRANSKNING AV
INTERNATIONELLT SLAG

Uppgifter om patentfamiljemedlemmar

02/12/97

ITS-nr.

SE 97/00194

US	5445627	A	29/08/95	AU	682695	B	16/10/97
				AU	6882694	A	16/02/95
				CA	2129482	A	07/02/95
				CN	2200429	U	14/06/95
				EP	0638303	A,B	15/02/95
				SE	0638303	T3	
				JP	6227266	A	16/08/94

WO	9516424	A1	22/06/95	AU	1402995	A	03/07/95
				CA	2122660	A	15/06/95
				FR	2713478	A,B	16/06/95
				GB	2284767	A	21/06/95
				GB	9425177	D	00/00/00
				ZA	9409971	A	23/08/95

PATENT COOPERATION TREATY

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INTERNATIONAL-TYPE SEARCH REPORT

(PCT Article 15.5)

National application No. 9700696-9	Country or Office of filing SE	Applicant's or agent's file reference 42866
Filing date (<i>day/month/year</i>) 26 February 1997		(Earliest) Priority Date (<i>day/month/year</i>)
Applicant SCA Mölnlycke AB		

Date of request for international-type search 26 February 1997	International-type search request No. SE 97/00194
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This international-type search report has been prepared by this International Searching Authority and is transmitted to the applicant.

This international-type search report consists of a total of 2 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☐ Certain claims were found unsearchable (See Box I).
2. ☐ Unity of invention is lacking (See Box II).
3. ☐ The international application contains disclosure of a **nucleotide and/or amino acid sequence listing** and the international-type search was carried out on the basis of the sequence listing
 - ☐ filed with the international application.
 - ☐ furnished by the applicant separately from the international application,
 - ☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.
 - ☐ transcribed by this Authority.

INTERNATIONAL-TYPE SEARCH REPORT

Search request No.

SE 97/00194

A. CLASSIFICATION OF SUBJECT MATTER

IPC6: A61F 13/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: A61F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5445627 A (S. MIZUTANI ET AL.), 29 August 1995 (29.08.95), column 2, line 34 - line 64, figure 3 --	1-7
A	WO 9516424 A1 (KIMBERLY-CLARK CORPORATION), 22 June 1995 (22.06.95), page 15, line 14 - page 18, line 11, figures 2,6 -- -----	1-7

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international-type search

15 December 1997

Date of mailing of the international-type search report

1997 -12- 19

Name and mailing address of the ISA/

Swedish Patent Office

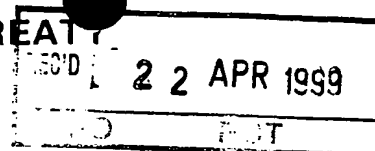
Box 5055, S-102 42 STOCKHOLM

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Authorized officer

Leif Brander

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 42866-49500KL	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/SE98/00339	International filing date (day/month/year) 25/02/1998	Priority date (day/month/year) 26/02/1997
International Patent Classification (IPC) or national classification and IPC A61F13/15		
Applicant SCA HYGIENE PRODUCTS AB et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 4 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 25/09/1998	Date of completion of this report 25. 02. 99
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. (+49-89) 2399-0 Tx: 523656 epmu d Fax: (+49-89) 2399-4465	Authorized officer Auer, H  Telephone No. (+49-89) 2399 2054

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/SE98/00339

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

1-3,5-17 as originally filed

4,4a as received on 29/01/1999 with letter of 29/01/1999

Claims, No.:

1-~~6~~ as received on 29/01/1999 with letter of 29/01/1999

Drawings, sheets:

1/19-19/19 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/SE98/00339

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-6
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-6
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-6
	No:	Claims	

2. Citations and explanations

see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/SE98/00339

ad V:

1. Most relevant prior art document is US-A-5 445 627, which is cited in the description and which discloses an absorbent article that includes apertures around which apertures elastically puckered sealing edges are disposed.

The problem of the invention is to provide a garment with a good sealing effect.

The solution is given by the combination of features of claim 1, i.e. in particular by a non-adhesive sealing medium such as defined in claim 1.

There is no hint in US-A-5 445 627 for using a non-adhesive to fill out pores formed between the sealing edge and the wearer's skin such as defined in claim 1. The other documents cited in the search report disclose only technological background.

Claim 1 is, therefore, in line with Articles 33(2) and (3) PCT.

2. The subject-matter of the dependent claims contain further embodiments of the invention and is also in combination with the independent claims novel and inventive (Articles 33(2) and (3) PCT).

New page

formed by folding over and welding one edge of the material. When the absorbent article is donned, the puckered edge will stretch partially, the extent of this stretch being dependent on the size of the wearer and how the article is donned. It is also possible to use an elastic element consisting of an elastic film. In this case the
5 elastic element will not be enclosed in a channel, but will be fastened, in a prestretched state, along a first longitudinal side-edge against the other side-edge of the unresilient material, the second side-edge of the element being free and abutting the wearer when the article is donned. Further, the first longitudinal side-edge of the elastic film may be fastened, in a prestretched state, directly against the top liquid-
10 permeable sheet or the bottom liquid-impermeable sheet. In this case, the barriers will consist of solely the elastic film.

Another type of sealing edges are described in US-A-5 445 627. A sanitary napkin is provided with a pair of elastically stretchable flaps adjacent transversely opposite
15 side edges. The flaps are in the form of straps and rising from a backsheet. Adhesives are applied on the top surface of said flaps so that the flaps may be adhesively fastened to the user's skin. The intention is to compensate for a shift of the basic body of the napkin relative to the wearer's body. Thus, the napkin is made to adhesively adhere to the user's skin. This is not a case where an elastic barrier
20 element is stretched against the wearer to obtain a good sealing effect.

In WO-A-9516424 a similar type of adhesive attachment of a sanitary napkin to the user is described. The object of the invention described is to provide an absorbent article that is adhesively secured to the wearer's body so that it will closely conform
25 to and fit the external body surfaces. This is obtained by an absorbent article including an absorbent and a body side adhesive secured thereto and exhibiting suitable adhesion properties to skin but which can be removed without appreciable discomfort.

AMENDED SHEET

New page

Neither US-A-5 445 627 nor WO-A-9516424 describes elastic cuffs or liquid barriers which are stretched when the article is fastened on the wearer and where the elastic element will hold the barrier edges under tension against the wearer.

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The invention will now be described with reference to the accompanying drawings, in which

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Figs. 1a, b illustrate the measuring equipment used to determine the leakage pressure or breakthrough pressure without any material applied and with material applied in a stretched state, respectively, and 1c is a principle illustration of how the leakage pressure is determined;

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Figs. 2a, b illustrate schematically a pore in a liquid barrier and the principle of determining the weighted mean value $\cos \theta_m$ and determining the radius r ;

Figs. 3a, b illustrate a conventional diaper or incontinence guard with upstanding liquid barriers;

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Figs. 4a, b illustrate the principle in which the available elongation or stretch is calculated;

AMENDED SHEET

New Claims

1. An absorbent article that includes an absorbent body (23) disposed between a liquid-impermeable bottom sheet (21), which is intended to lie distal from the wearer in use, and a liquid-permeable upper sheet (22), which is intended to lie proximal to the wearer, and either 1) at least one longitudinally extending elastic liquid barrier (29) on each side of the centre line of said upper sheet, made of an essentially liquid-impervious material (12) and fastened to the upper or bottom sheet (22, 21) along or adjacent to a respective longitudinally extending side extremity (26, 27) of the article and comprising a free sealing edge facing towards the wearer, or 2) above the upper sheet (22), an essentially liquid-impermeable top sheet which is intended to lie against the wearer, includes elastic for shaping the article to the wearer's body, and includes apertures intended to lie in register with the anus and the urethra orifice of the wearer, around which apertures elastically puckered sealing edges are disposed in the top sheet, **characterized in** that at least the sealing edge is treated with a non-adhesive sealing medium which, in use, at least partly fills out any through-penetrating pore formed between the sealing edge and the abutment surface on the wearer, and/or which, when the article is donned, smears said abutment surface and thereby increases the wetting angle of the liquid to the skin.

2. An absorbent article according to Claim 1, **characterized in** that the sealing edge is coated with the sealing medium in an amount sufficient to both partly fill out the pores and to smear the wearer's skin.

3. An absorbent article according to Claim 1 or 2, **characterized in** that said sealing medium is applied in an amount corresponding to $0.1-100 \text{ g/m}^2$, suitably $1-30 \text{ g/m}^2$, particularly $2-20 \text{ g/m}^2$ and preferably $3-10 \text{ g/m}^2$.

AMENDED SHEET

4. An absorbent article according to any one of Claims 1-3, **characterized in that** the sealing medium has a wetting angle above 90°, preferably above 95°, and then particularly of at least 100°.
- 5 5. An absorbent article according to any one of Claims 1-4, **characterized in that** the rheological properties of the sealing medium are such that said medium will be essentially rigid and viscous at room temperature and sufficiently fluid to smear the skin of the wearer at body temperature.
- 10 6. An absorbent article according to any one of Claims 1-5, **characterized in that** the sealing medium is an ointment that comprises fat or oil of animal, vegetable or petrochemical origin, or a water-in-oil emulsion.